

ABSTRACT

Multiple transmitters generate repetitive waveforms having similar values of center frequency F and bandwidth B that are modulated with different information signals having bandwidth SB . Each transmitter generates a waveform having a unique repetition rate. The modulated waveforms are coupled into a communication channel. A receiver receives and separates the transmitted signals using a coherent correlation process, such as interferometry. The combining process extracts signals having a repetition period corresponding to a relative delay applied to consecutive waveforms. Waveforms having non-corresponding repetition periods combine non-coherently, thus enabling signal demultiplexing to be performed with respect to waveform repetition periods.